

REMARKS

These remarks are in response to the Office Action dated November 17, 2004. In the Office Action, the Examiner rejected claims 1, 6-7, 9-11, 14-15, 19, 21-23, and 25-30 under 35 U.S.C. § 102(e) as being anticipated by Herz *et al.*, U.S. Patent No. 6,088,722 (hereinafter *Herz*). Claims 2-5, 12, 13, 16, and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Herz*, in view of Payne *et al.*, U.S. Patent No. 6,021,433.

The IDS filed on 9/16/03 has not been acknowledged by the Examiner and respectfully asks that it be considered.

None of the claims have been amended herein. Thus, claims 1-7, 9-19, 21-23, and 25-30 remain pending in the application. For the reasons set forth below, the Applicants respectfully request reconsideration and allowance of all pending claims.

Traversal of Claim Rejections under 35 U.S.C. § 102

Claims 1, 6-7, 9-11, 14-15, 19, 21-23, and 25-30 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Herz*. A claim is anticipated only if each and every element of the claim is found in a single reference. M.P.E.P § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987)). "The identical invention must be shown in as complete detail as is contained in the claim." M.P.E.P. § 2131 (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226 (Fed. Cir. 1989)). Applicant respectfully asserts that *Herz* does not disclose each and every element of claims 1, 6-7, 9-11, 14-15, 19, 21-23, and 25-30.

With respect to independent claim 1, this claim recites:

1. A method, comprising:

receiving meta-data broadcast by a server system at a client system, the meta-data including attributes describing the content of respective data files from among a plurality of data files to be broadcast later by the server system;

generating ratings for each of the plurality of data files via the client system based on existing attribute rating data stored by the client system and common attributes contained in the meta-data for that data file;

selecting, via the client system, one or more of the plurality of data files described by the meta-data to store based on the ratings generated for the plurality of data files; and

selectively storing, via the client system, the selected one or more of the plurality of data files in response to a later broadcast of those data files by the server system. (Emphasis added)

Applicant respectfully asserts that *Herz* does not disclose selecting data files described by meta-data to store based on ratings generated for the data files, or store such selected data files when they are broadcast.

Herz discloses a system and method for scheduling broadcast of and access to video programs and other data using customer profiles. As stated in the Abstract (in pertinent part), *Herz* discloses,

A system and method for scheduling the receipt of desired movies and other forms of data from a network, which simultaneously distributes many sources of such data to many customers, as in a cable television system. Customer profiles are developed for the recipient describing how important certain characteristics of the broadcast video program, movie, or other data are to each customer. From these profiles, an "agreement matrix" is calculated by comparing the recipient's profiles to the actual profiles of the characteristics of the available video programs, movies, or other data. The agreement matrix thus characterizes the attractiveness of each video program, movie, or other data to each prospective customer. "Virtual" channels are generated from the agreement matrix to produce a series of video or data programming which will provide the greatest satisfaction to each customer. (Emphasis added)

Under *Herz*, there is no storing of data files (pertaining to video programming). Rather, a virtual channel is generated (from an agreement matrix) that includes programming that user(s) (customers) of a given set-top multimedia terminal (*i.e.* box) are determined most likely to be interested in. The virtual channel, in effect, is a channel that includes programming that is determined to be of most interest to the

customer for a given timeslot. In fact, the same programming is also available on it's original intended channel, so the virtual channel does not add any program content that would otherwise not be received. Rather, the virtual channel, if perfect, would identify the program content a customer would most like to see from among all of the content available for a particular timeslot without requiring the customer to "surf" through all of the available program options for that timeslot. As stated in Col. 1, lines 45-54 of the Background of the Invention section,

For example, in the home video context, it is desired to provide mechanisms which present the available video information to the customers in a comprehensible way. Such mechanisms should eliminate the necessity of "channel surfing" to find a program suitable for viewing out of the hundreds of video programming alternatives which are expected to be made available. The present invention is thus designed to help the customer of video and other data services to receive, with minimal effort, the information he or she is most interested in.

Also, as stated in Col. 3, lines 15-23,

Thus, as used herein, a "virtual channel" is a channel formed as a composite of several source materials or programs which may or may not change during respective time periods to reflect the programming most desirable to the customer during that time period. The creation of such "virtual channels" is intended to minimize the amount of "channel surfing" necessary to find the most preferred video program at a particular time.

However, there is no storing of the content viewed via the virtual channel.

Furthermore, there is no mechanism disclosed by *Herz* to determine which content to store and which content to replace when such a store would becomes full, which would be required to make such a storage scheme practical.

Overall details of the *Herz* process are shown in Figures 1 and 2, and generally described in columns 25-27. In further detail, *Herz* states,

The content profiles received with the electronic program guide data are preferably stored at the set top multimedia terminal and compared by the set top multimedia terminal to the customer profiles for each customer. An agreement matrix is then created at step 106 using the techniques described above. Once the agreement matrix has been generated, those programs with the highest values for ac , i.e., the closest distance ($1/ac$) and hence closest match to the customer's profile or profiles, *are prioritized and selected for presentation as "virtual channels"* (in the case of creating "virtual channels" at a set top multimedia terminal)

or as the programming channels (in the case of scheduling video programming at the CATV head end) at step 108. This process is described in more detail herein with respect to FIG. 2. (Col. 26, lines 5-19, emphasis added)

and

FIG. 2 illustrates a technique for selecting video programs for "virtual channels" at the customers' set top multimedia terminals or, alternatively, for scheduling video programming at the head end from the available video programming sources. As illustrated, the method is initialized at step 202 by determining which customer profile or profiles are *active for the time period to be scheduled*, by determining the customers' appetites (number of channels available for transmission), and by determining the database of video programming from which the schedule may be created. For example, at the head end, the video programming database may be any video programming available for transmission during the designated time frame, while at the set top multimedia terminal, the video programming database comprises only the video programming on those channels which the customer is authorized to receive.

Once the agreement matrix for the available video programs has been determined, at step 204 the most popular programs for a single customer (at the set top multimedia terminal) or a cluster of customers (at the head end) are selected and removed from the list of available programs during the *relevant time interval*. ***Of course, in the case of scheduling at the set top multimedia terminal, the video programs scheduled onto "virtual channels" are still received on their regular channels and the "virtual channels" are assigned to unused channels of the set top multimedia terminal.*** (Col. 26, lines 38-64)

In support of the rejection of claim 1, the Examiner cites Col. 6, lines 63-67 and Col. 43, lines 42-63 for disclosing aspects of *Herz's* invention that read-on corresponding elements in the last two sub-paragraphs of claim 1. These portions of *Herz* respectively state,

Preferably, the monitoring function is accomplished by storing, at each customer's set top multimedia terminal, a record of the video programs actually watched by the customer at the customer's location and, [in the case of a system with a two-way communication path to the head end, polling the set top multimedia terminals of all customers to retrieve the records of the video programs actually watched by the customers at each customer location]. (Emphasis added)

and

However, in the two-way embodiment of FIG. 5, the head end 502 includes a distribution system 504 which is controlled by system controller

506 to schedule the presentation of the program source material 402 to the customers in response to passive feedback data stored in data collection memory 508 which has been received from the customers' set top multimedia terminals 412. In particular, the customer profile data and viewing habit data is collected and periodically provided via return path 510 to data collection memory 508 as a record of what the customers desire to watch and what they actually watched.

In accordance with the techniques described in detail above, this information is then used to appropriately update the system profiles (composite of all customer profiles) and/or the content profiles of video programs and thus, in turn, is used in adjusting the scheduling of the program source material 402 for transmission via nodes 510 to the respective set top multimedia terminals 512 in the customers' homes. As in the one-way embodiment of FIG. 4, each set top multimedia terminal 412 then determines "virtual" channels for presentation to the customers' televisions. As noted above, return path 510 preferably constitutes a telephone connection, although the return path 510 could also be a portion of the broad band cable connection.

In the context of the present application and the terminology used by *Herz*, data files and video programming refer to the same thing, wherein video programming includes data corresponding to broadcast of an actual video program as opposed to video programming data, which is descriptive of such a video program. What is stored in the invention of claim 1 is the data files, or, in the context of *Herz*, video programming, which is selectively stored at the set-top box to enable the video programming to be viewed at a later point in time by playing back the video programming on the set-top box. In contrast, *Herz* merely stores "a record of the video programs actually watched by the customer at the customer's location." The actual video programming (i.e., video program) is never stored under *Herz*.

It is clear that *Herz* provides no means for storing video programming. As shown by the multimedia terminal software block diagram of Fig. 9, there is no block related to storing video programming. Furthermore, there is no storage device for storing video programming in the multimedia terminal hardware block diagram of Fig. 10. The only means via which any data may be stored is memory 1012, which is used to store "The customer profile data and/or records of the viewing habits of the customer." (Col. 48,

lines 22-24). Clearly, there is no means for storing the actual video programming, nor is such use disclosed in *Herz*.

With respect to the elements recited in the first sub-paragraph of claim 1, *Herz* also does not broadcast meta-data including attributes describing the content of respective data files. Under the terminology of *Herz*, the meta-data comprise content profiles (*i.e.*, profiles of the content (video programming) to be broadcast). *Herz* discloses three schemes for providing content profiles: 1) included as part of an electronic program guide (preferred) (via a telephone line download), 2) transmitted as part of the bit stream of the video program (for digital transmission), and 3) in the vertical blanking intervals of the video program (for analog transmission).

Herz describes "downloading" electronic program guide data. Typically, with a stand-alone set-top box system, such as TiVo unit or the like, the electronic program guide data is downloaded via a telephone line on a periodic basis. (Applicant notes that for some modern set-top boxes provided by a satellite or cable provider, the electronic program guide data is received via a broadcast channel that is designated for this purpose – however, this was not employed at the time of the *Herz* invention.) The electronic program guide data only pertains to programming that is already scheduled. An electronic program guide is akin to an electronic version of a TV guide (or similar publication). It lists program schedules and describes attributes of each program (title, plot, actors, *etc.*), some of which may be included in the content profile data. Typically, the electronic program guide enables a user to navigate forward in the guide to see what upcoming scheduled programming will be available for viewing, enabling the user to arrange his or her schedule to watch a particular program.

Under 2) transmitted as part of the bit stream of the video program (for digital transmission), and 3) in the vertical blanking intervals of the video program (for analog transmission), the content profile data that is sent via these techniques only pertains to content that is currently being viewed (*i.e.*, a single scheduled program). As stated in Col. 42, lines 21-40,

In the embodiment illustrated in FIG. 4, the set top multimedia terminals 412 sit on top of the television and receive as input the shows being broadcast *and their associated content profiles (either in the bit stream, the vertical blanking interval, or separately as part of the electronic program guide information)*. The set top multimedia terminals 412 have the customer profiles for that residence prestored therein. Set top multimedia terminal 412 may also include means for monitoring which shows are being watched by the customer. From this information, the customer profiles stored in the set top multimedia terminal 412 may be modified by the software of the set top multimedia terminal 412 using the techniques described in Section II.B. above. In other words, each set top multimedia terminal 412 preferably includes means for updating the customer profiles based on what the customer actually watched. However, the set top multimedia terminals 412 do not provide the list of the watched programs back to the head end for adjusting the video programming schedule since a two-way data transmission system would be required. (Emphasis added)

(It is noted that in another embodiment a two-way data transmission scheme is employed for providing feedback related to customer profiles).

Also, as stated in Col. 47, line 66 – Col. 48, line 17,

FIG. 10 illustrates a hardware embodiment of set top multimedia terminal 620. As shown, the video program material and corresponding content profiles are received from the head end 502 by tuner 1002, or the content profiles are separately received at data receiver 1004 along with the electronic program guide information via the dotted line path. If scrambling is employed, as in the transmission of Pay-Per-View video programming, the scrambled video signals are supplied from tuner 1002 to descrambler 1016 before being further processed by microprocessor 1006 and/or modulated by modulator 1018 for display in accordance with the invention. *If tuner 1002 selects a channel containing video program data in its vertical blanking interval ("VBI data") received from head end 502, the VBI data is supplied directly to microprocessor 1006 and/or the content profile data is supplied to microprocessor 1006 via data receiver 1004. The video data is supplied directly to the descrambler, as necessary, and then to the modulator 1018 for display in a conventional manner.*

In the foregoing paragraph, the "video program data" and "video data" relates to a video program being viewed, while the content profile data only relates to that video program. Thus, the content profile data clearly concerns program content that is currently being viewed. Similarly, content profile data that is included in a bit-stream

would likewise relate to the video data provided in the bit-stream (the bulk of the bit stream data), and thus concern content currently being viewed.

It is clear from the foregoing argument that *Herz* does not disclose each and every element of claim 1. Accordingly, the rejection of claim 1 is improper and should be withdrawn.

With respect to independent claim 11, this is a claim to an apparatus for performing operations that are analogous to corresponding operations performed under the method of claim 1. Accordingly, for reasons similar to those presented above in support of the patentability of claim 1, Applicant respectfully asserts the rejection of claim 11 is improper, and should be withdrawn.

With respect to independent claim 15, this is a Beauregard claim (machine-readable medium having instructions to perform a method) for performing operations that are analogous to corresponding operations performed under the method of claim 1. Accordingly, for reasons similar to those presented above in support of the patentability of claim 1, Applicant respectfully asserts the rejection of claim 15 is improper, and should be withdrawn.

With respect to independent claims 7, the Examiner asserts that *Herz* teaches all of the claim elements. This claim recites,

7. (Previously Presented) A method, comprising:

broadcasting meta-data to one or more client systems, the meta-data including attribute data describing the content of respective data files from among a plurality of data files to be broadcast later by the server system; and

broadcasting a meta-data broadcast schedule prior to broadcasting the meta-data, the meta-data broadcast schedule to indicate a time when the meta-data is to be subsequently broadcast.

As discussed above, *Herz* clearly does not broadcast meta-data describing the content of multiple data files to one or more clients, but rather such content profile data is obtained via 1) included as part of an electronic program guide (downloaded

individually by a client using a telephone line), 2) transmitted as part of the bit stream of the video program (for digital transmission), and 3) in the vertical blanking intervals of the video program (for analog transmission).

Furthermore, *Herz* clearly does not broadcast a meta-data broadcast schedule prior to broadcasting the meta-data that identifies when the meta-data is to be broadcast. In support of the assertion the *Herz* teaches this claim element, the Examiner cites Col. 14, lines 24-64 and col. 42, line 42 to col. 43, line 52.

The first cite, Col. 14, lines 24-64 has nothing to do with broadcasting anything, much less a meta-data broadcast schedule. Rather, these two paragraphs pertain to a "rave review" scheme for rating programming. The second cite, col. 42, line 42 to col. 43, line 52 concerns a description of a two-way implementation under which information collected at set top multimedia terminals is provided to a head end so that the video programming schedule may be adjusted and so that targeted advertising and the like may be provided from the head end. It is not clear to Applicant what this has to do with broadcasting a meta-data broadcast schedule.

From the foregoing, it is clear that *Herz* does not disclose each and every element of independent claim 7. Accordingly, the rejection of claim 7 is improper, and should be withdrawn. For analogous reasons, the rejection of each of independent claims 19 (an apparatus for performing the method of claim 7) and 23 (a Beauregard claim reciting a machine-readable medium having instructions for performing the method of claim 7) is improper, and should be withdrawn.

With respect to independent claim 27, which recites a system for performing server and client side operations of claim 1, the Examiner rejected this claim as anticipated by *Herz* based on the rationale used to reject claims 1, 11, and 15. For analogous reasons presented above in support of the patentability of claims 1, 11, and 15, Applicant respectfully asserts that the rejection of claim 27 is improper, and should be withdrawn.

Conclusion

Overall, none of the references singly or in any motivated combination disclose, teach, or suggest what is recited in the independent claims. Thus, in view of the above remarks, independent claims 1, 7, 11, 15, 19, 23, and 27 are patentable over the cited art and are in condition for allowance. The dependent claims that depend directly or indirectly on these independent claims are likewise allowable based on at least the same reasons and based on the recitations contained in each dependent claim.

If the undersigned attorney has overlooked a teaching in any of the cited references that is relevant to the allowability of the claims, the Examiner is requested to specifically point out where such teaching may be found. Further, if there are any informalities or questions that can be addressed via telephone, the Examiner is encouraged to contact the undersigned attorney at (206) 292-8600.

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Please charge our Deposit Account No. 02-2666 for any additional fee(s) that may be due in this matter, and please credit the same deposit account for any overpayment.

Respectfully submitted,

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